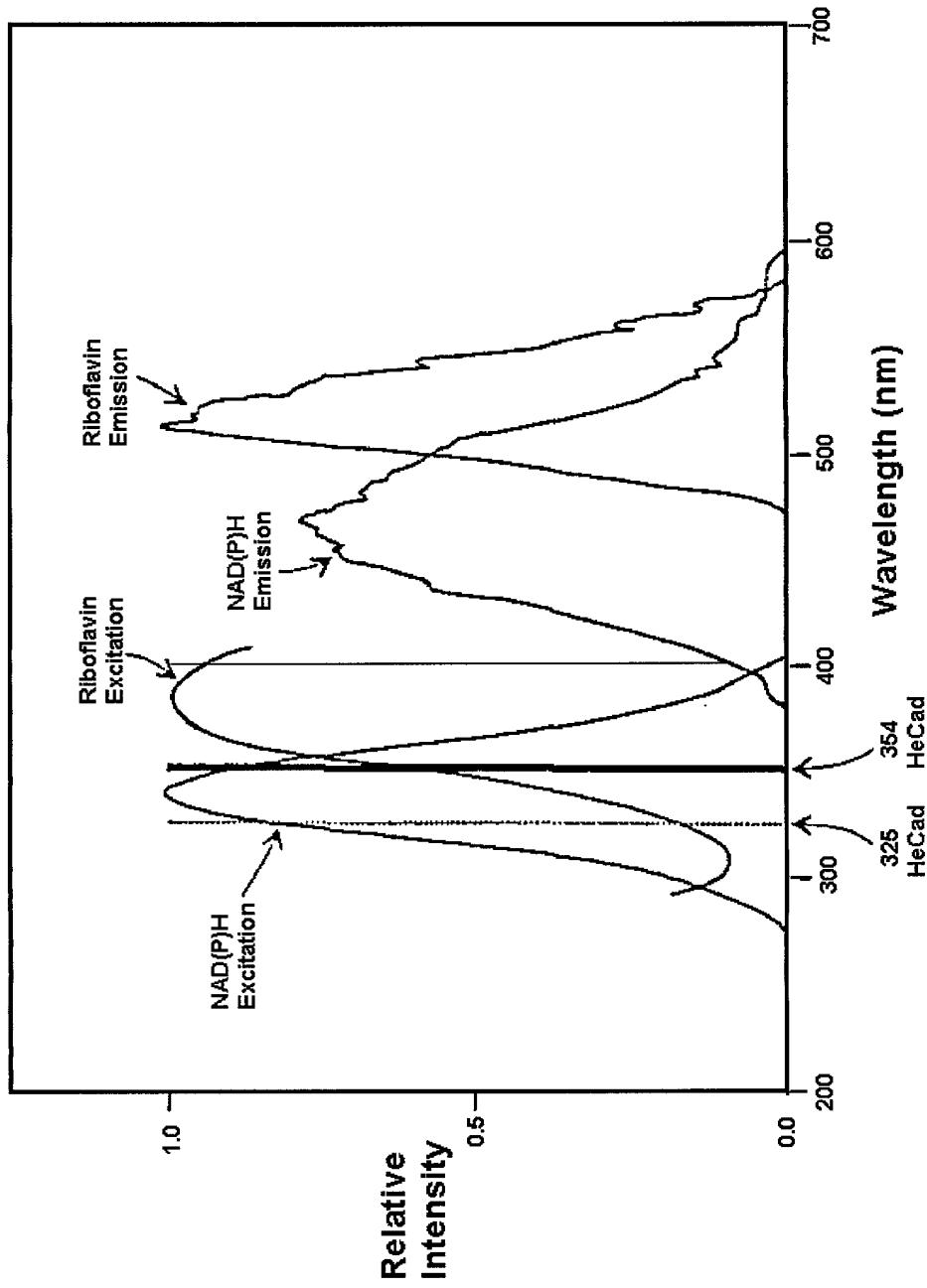


## Excitation and Emission Bands of NAD(P)H and Riboflavin

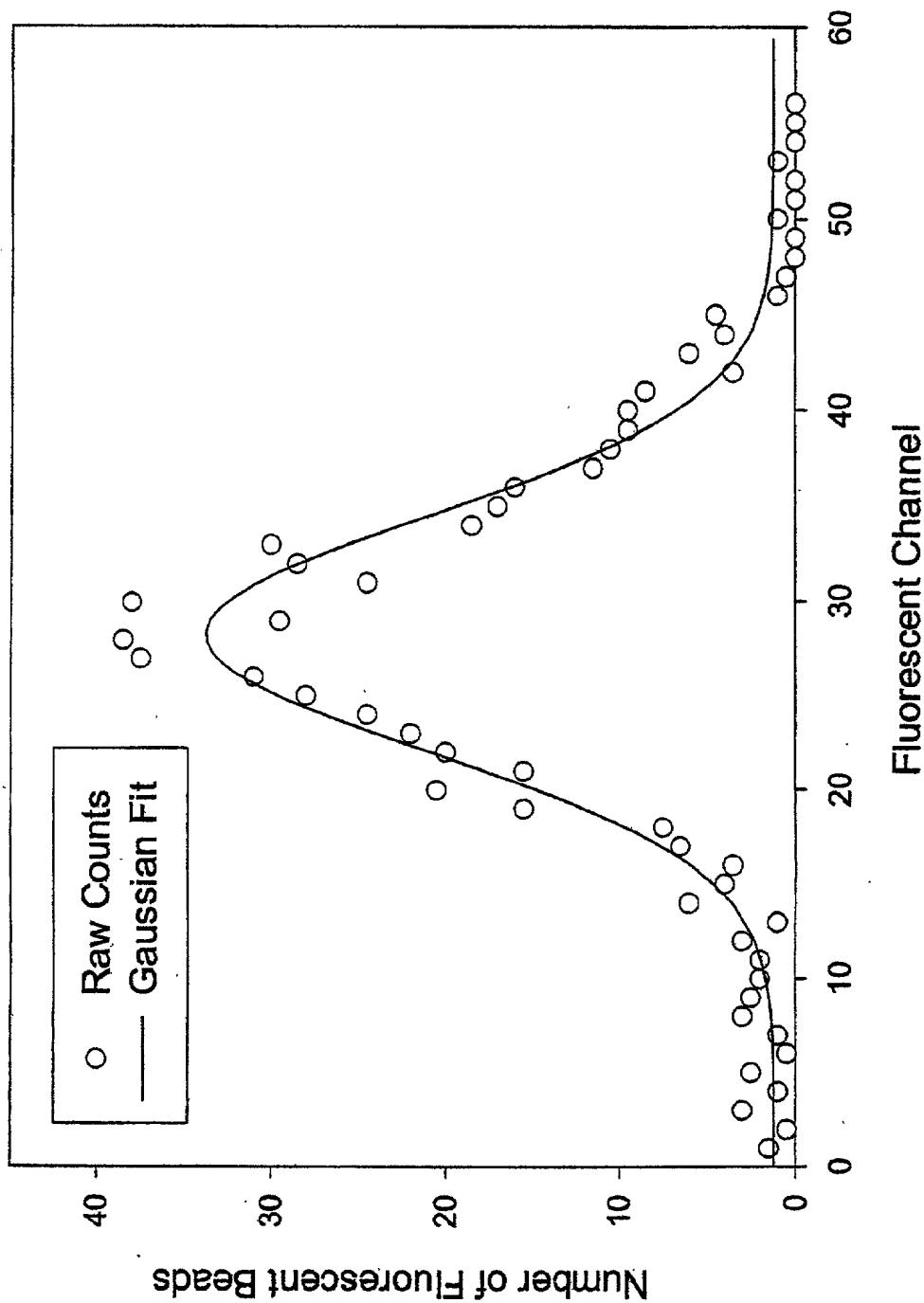


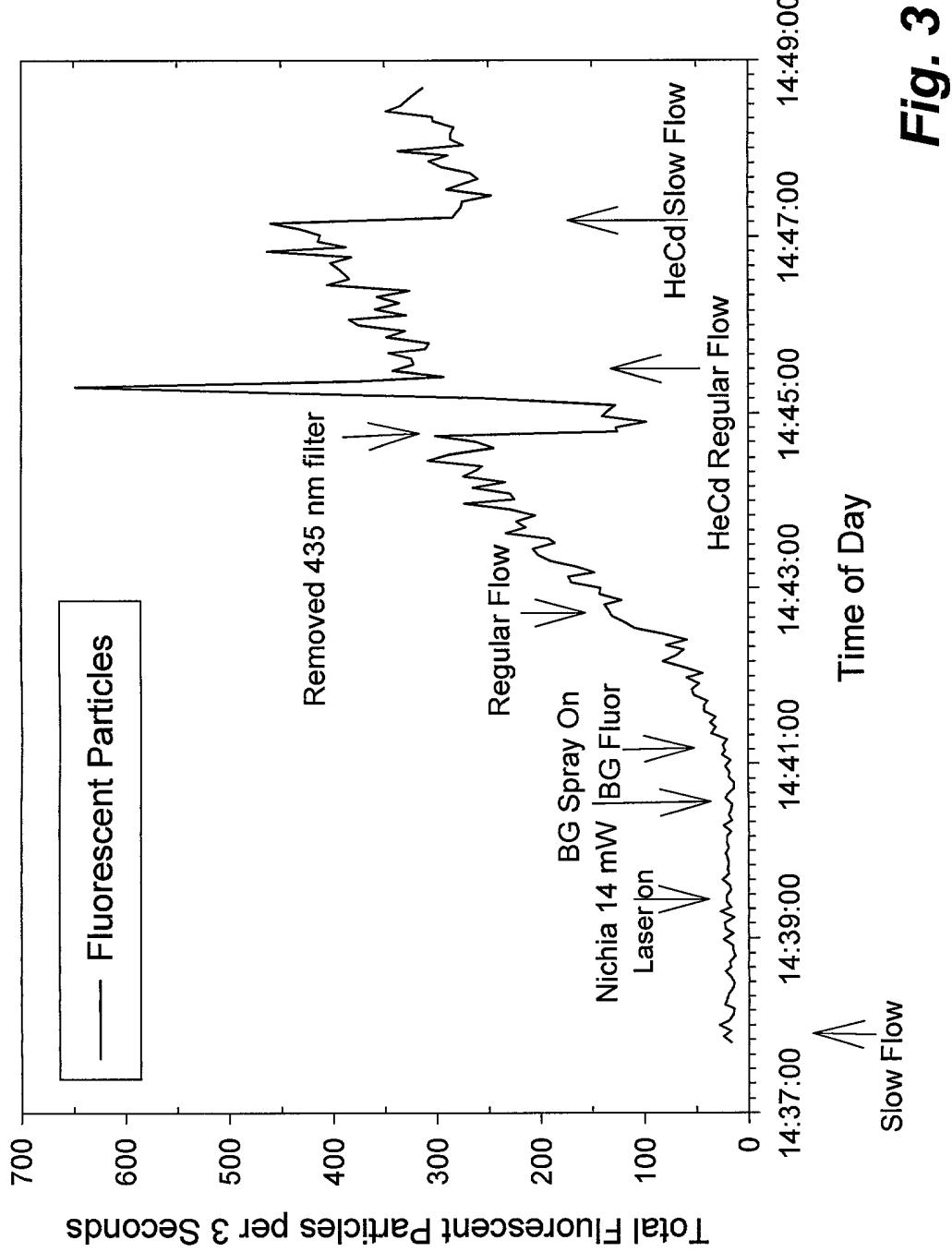
**Fig. 1**

**Fig. 2**

$r^2=0.96$  DF Adj  $r^2=0.95$  FitStdErr=2.46 Fstat=387.17  
 $a=1.22$   $b=32.50$   $c=28.24$   $d=6.23$

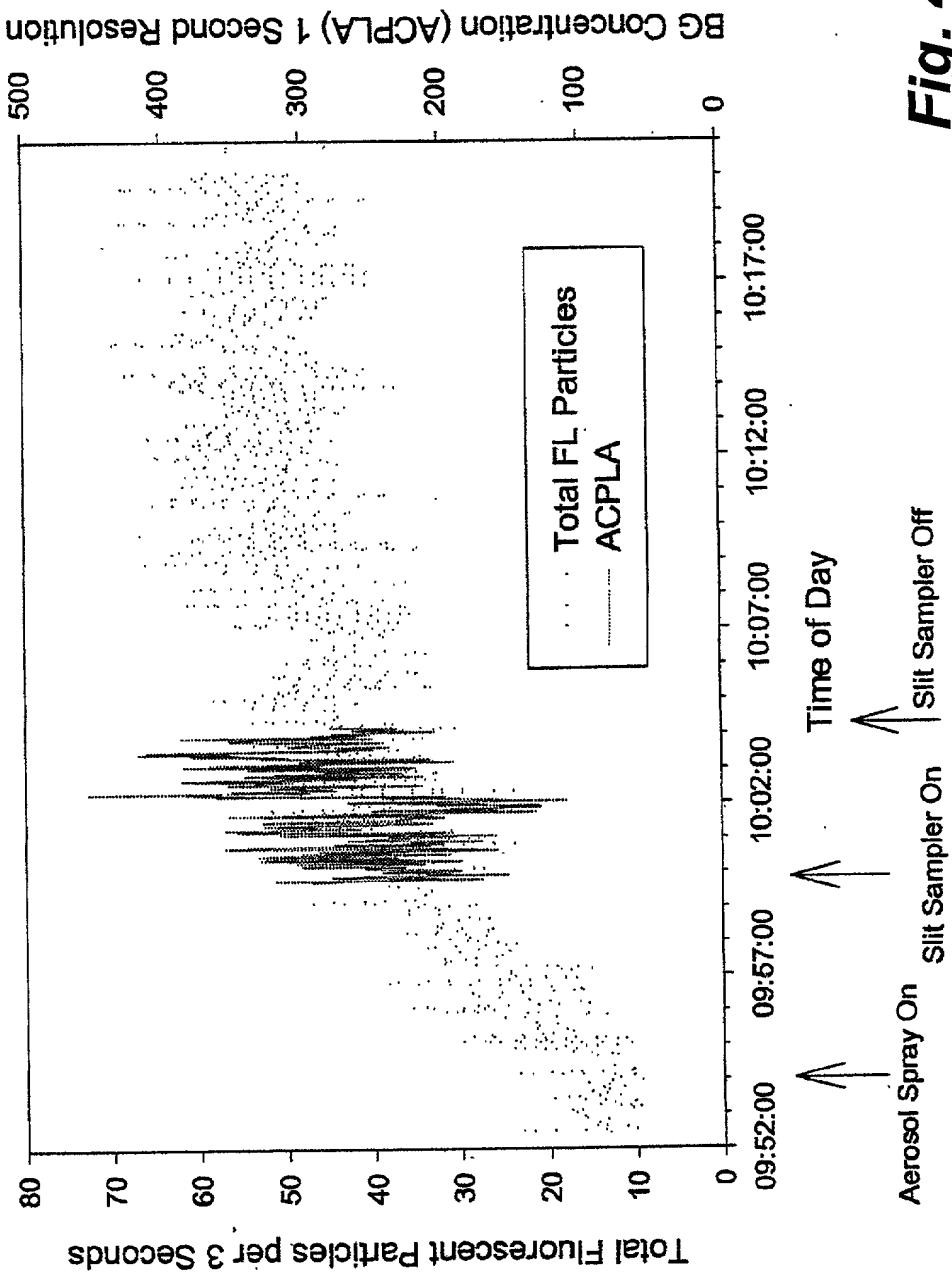
[Gaussian]  $y=a+b\exp(-0.5((x-c)/d)^2)$





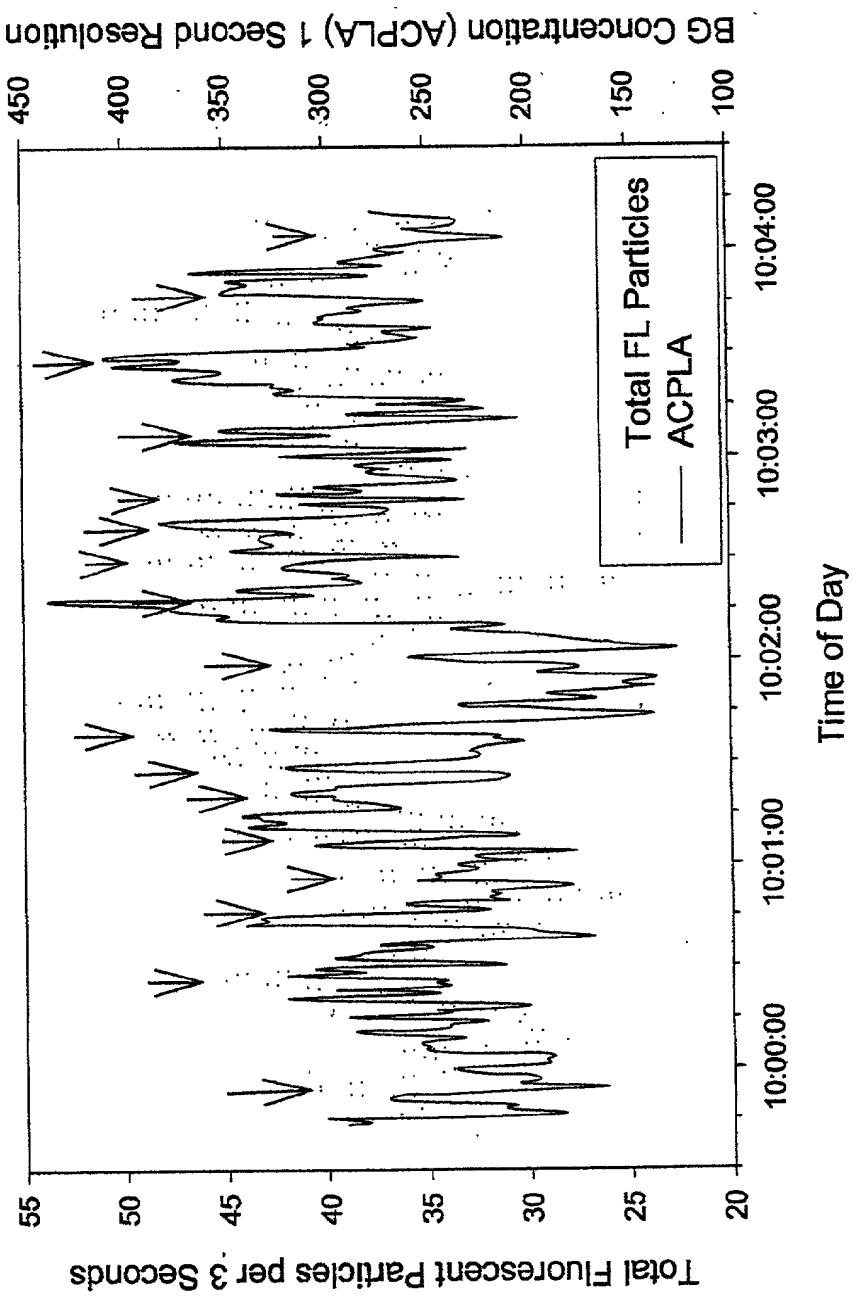
**Fig. 3**

FLAPS1 Measurement of BG Aerosol with Nichia Light Source (12 mw)  
0.05% BG Slurry Using a Spinning Disk Generator  
Comparison with Reference Data



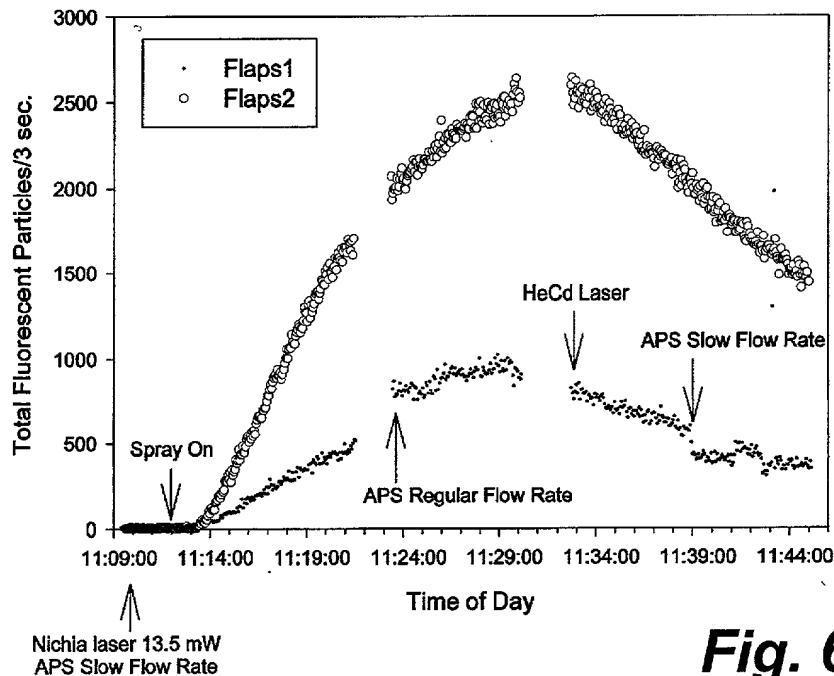
**Fig. 4**

FLAPS1 Measurement of BG Aerosol with Nichia Light Source (12 mw)  
0.05% BG Slurry Using a Spinning Disk Generator  
High Resolution Comparison with Reference Data



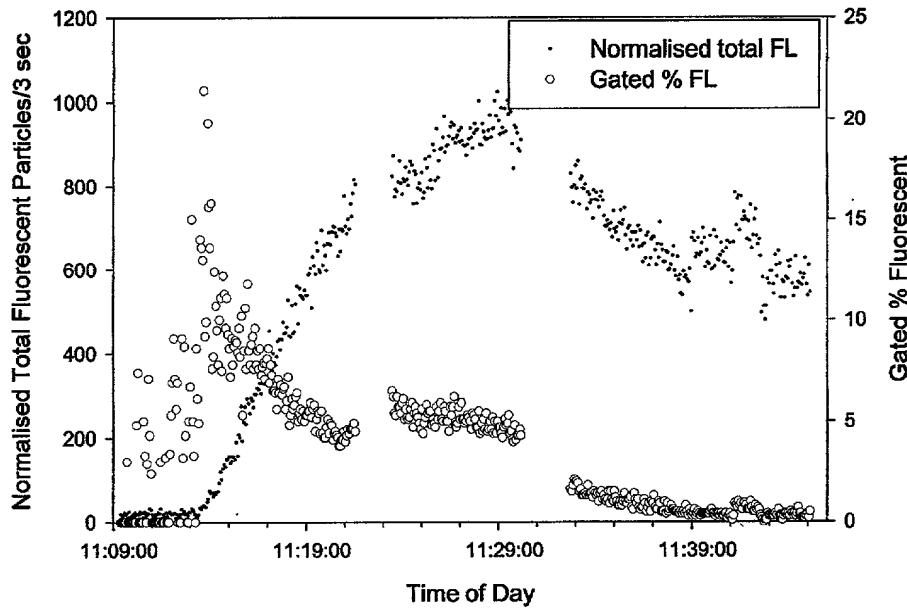
**Fig. 5**

**Comparison of Three Generations of Detector Technologies  
BG Aerosol Generated by Spinning Disk with 0.5% Slurry**



**Fig. 6a**

**Comparison of Normalised FLAPS1 Fluorescent Data**



**Fig. 6b**

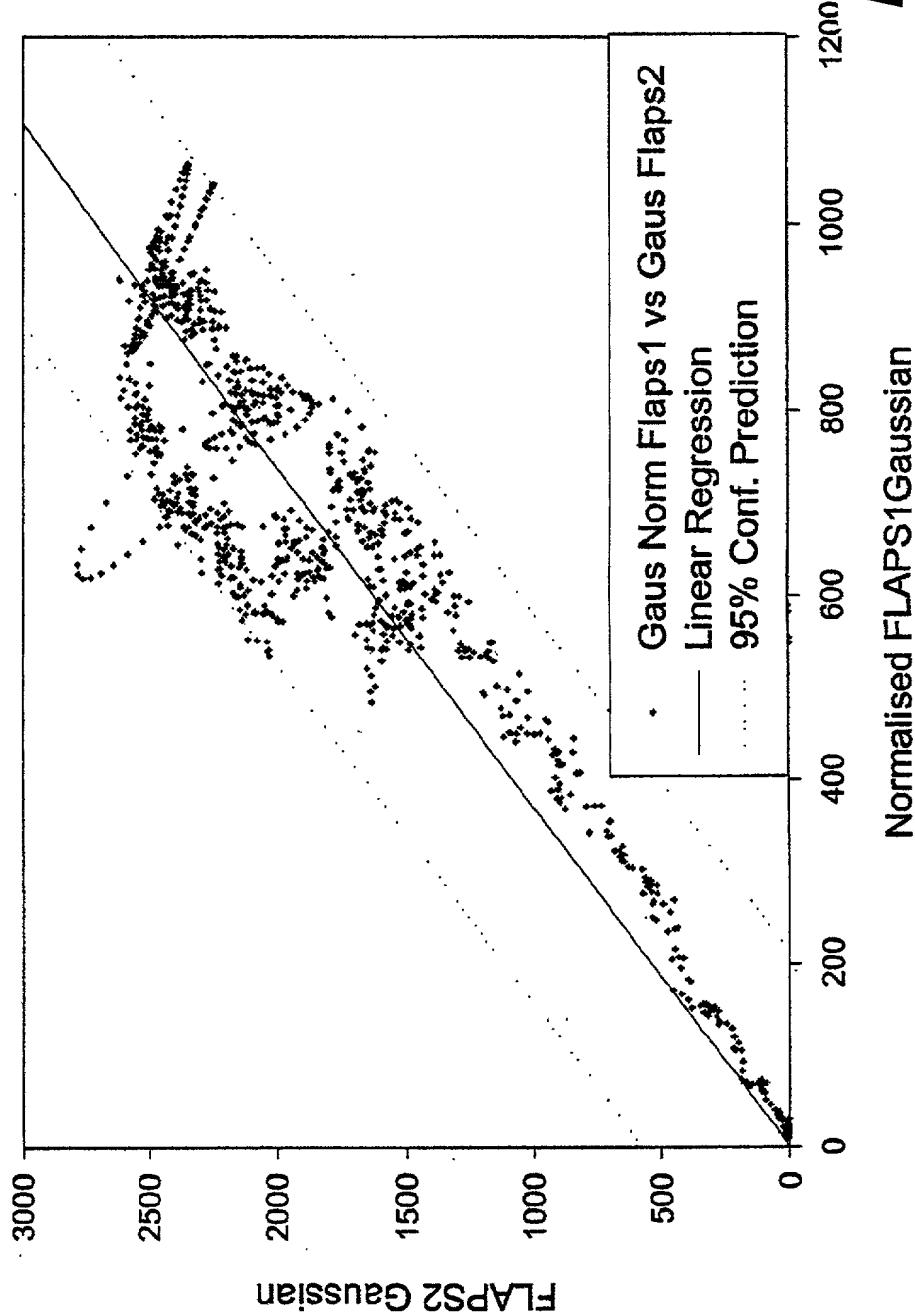
## Spearman Rank Order Correlation Test

Correlation Coefficient = 0.86

Normality Test (Kolmogorov-Smirnov)

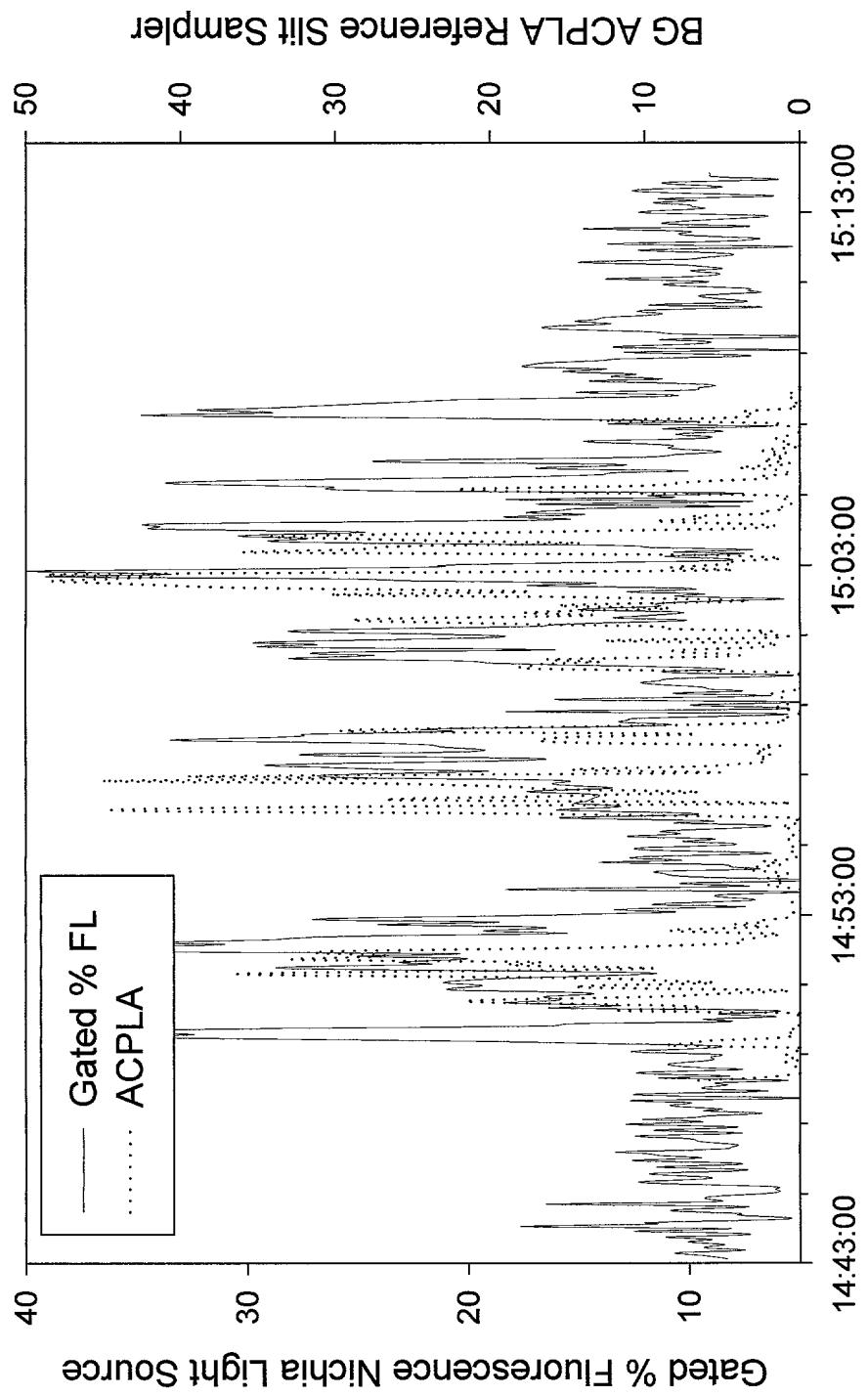
FLAPS1:K-S Dist. = 0.154 P< 0.001 Failed

FLAPS2:K-S Dist. = 0.145 P< 0.001 Failed



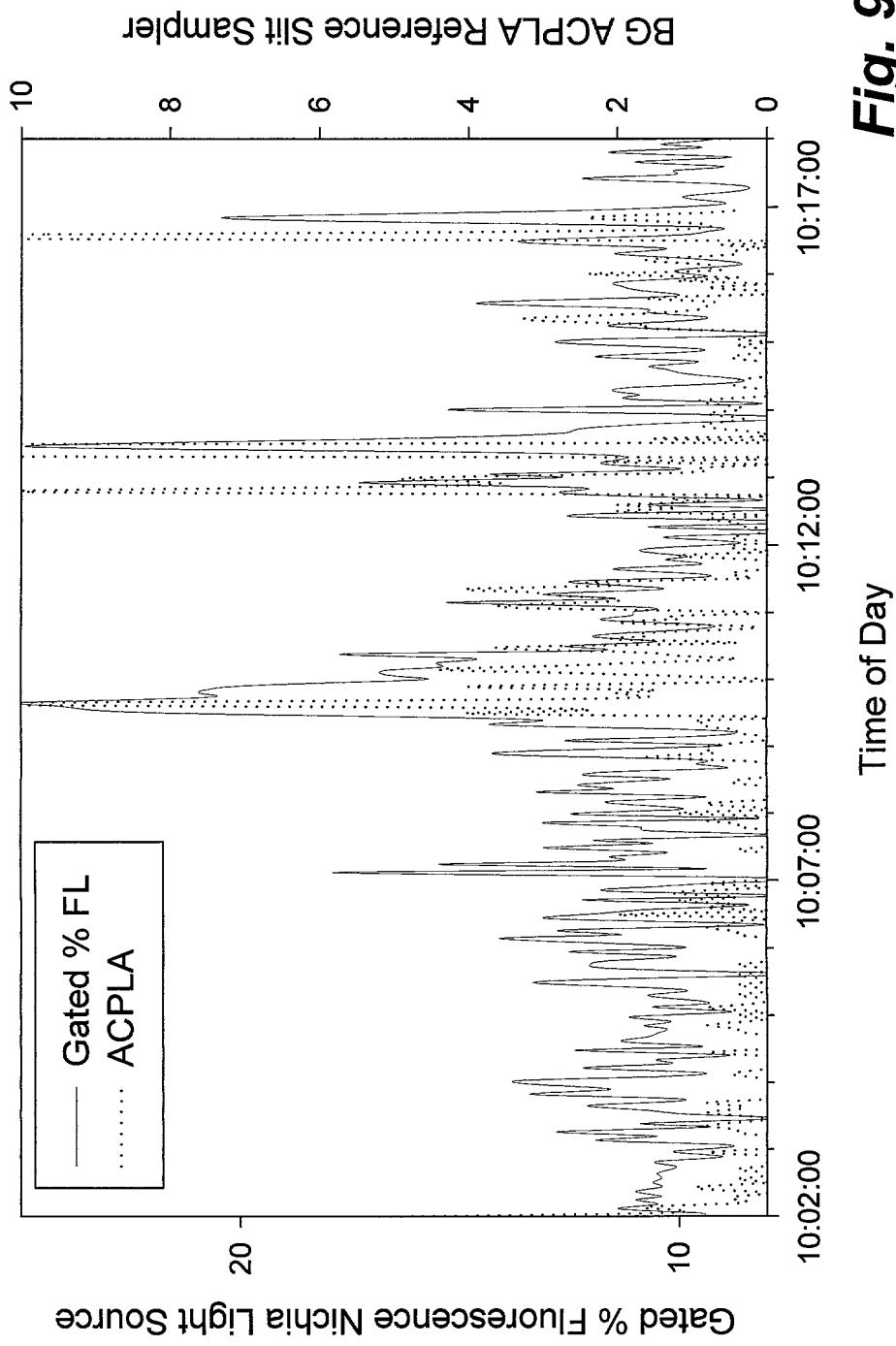
**Fig. 7**

FLAPS1 Detection of BG Aerosol Using Nichia Laser Diode  
Field Measurement at CWAL Day 152



**Fig. 8**

FLAPS1 Detection of BG Aerosol Using Nichia Laser Diode  
Field Measurement at CWAL Day 153



*Fig. 9*

FLAPS1 Detection of BG Aerosol Using HeCd Laser Diode  
Field Measurement at CWAL Day 153

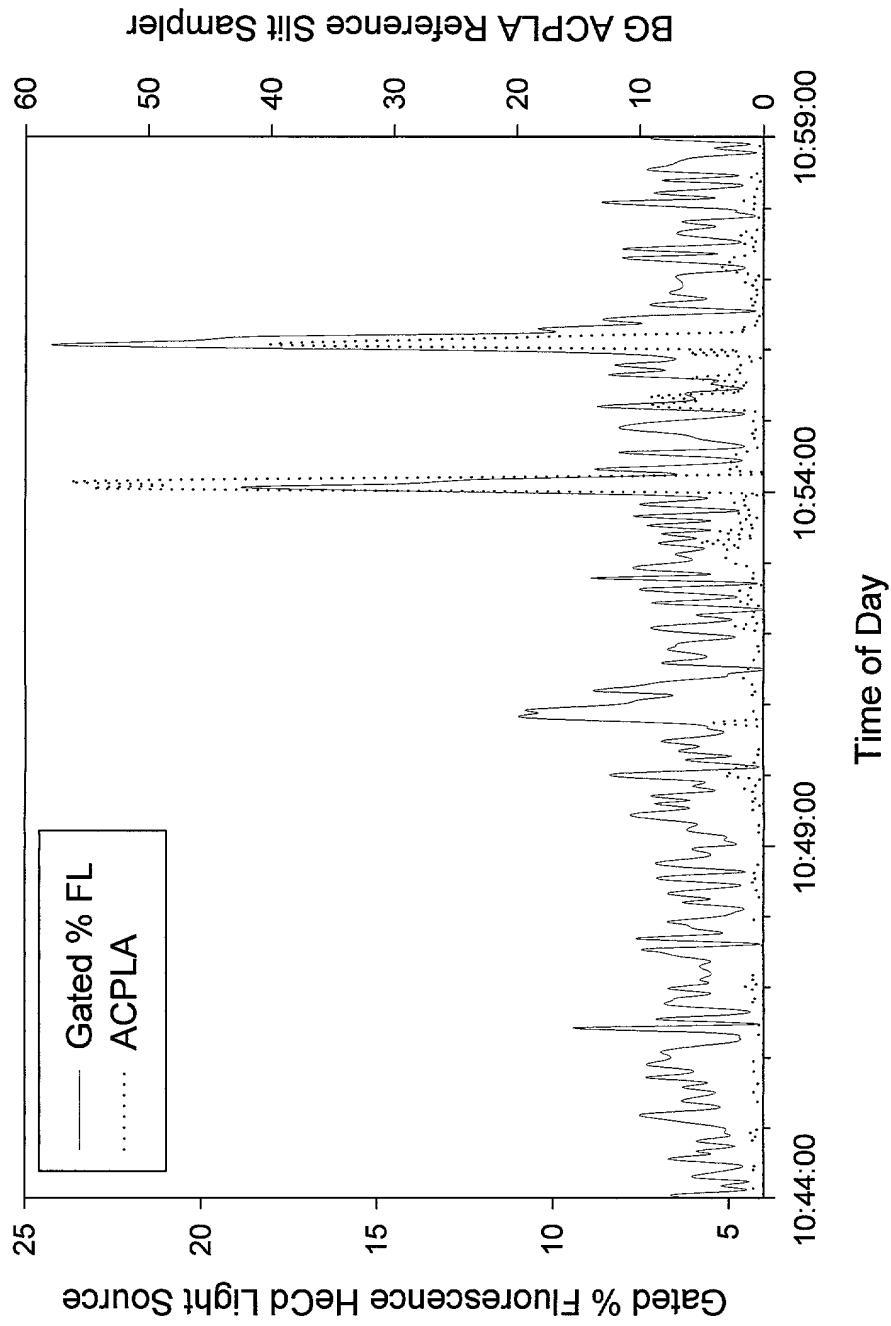
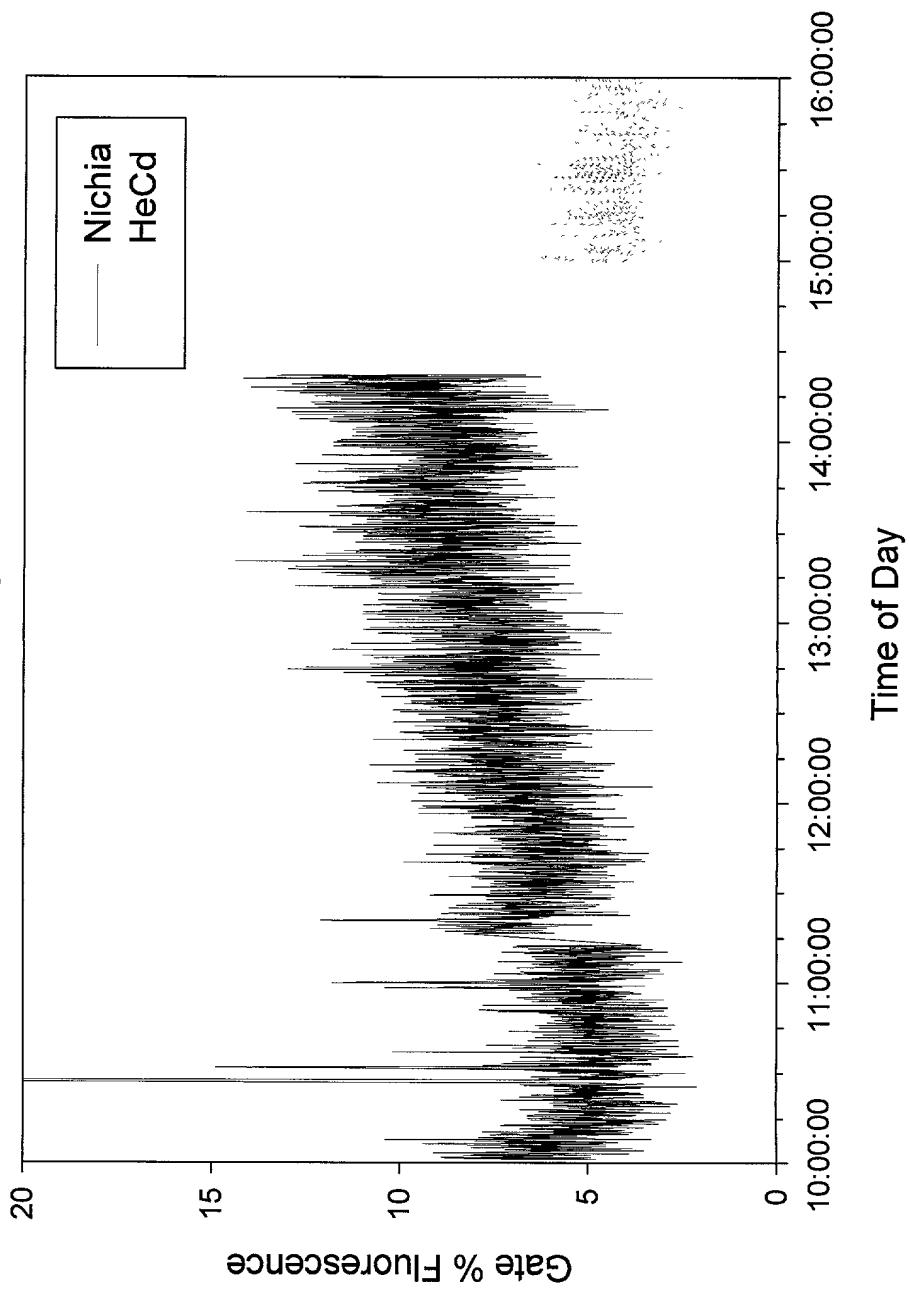


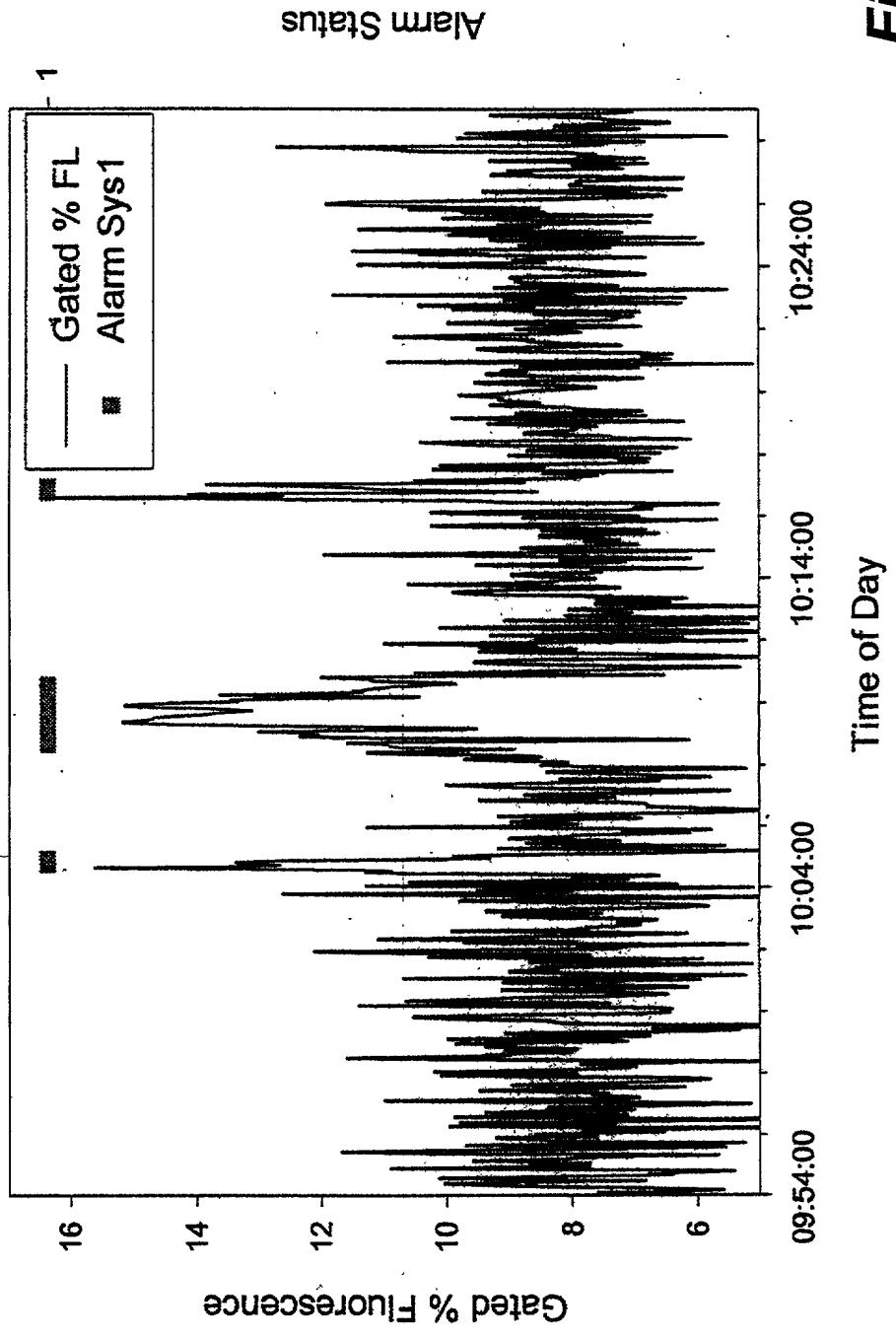
Fig. 10

Background Aerosol Measurement with FLAPS1  
Comparison of Two Light Sources  
CWAL Site Day 139 2000



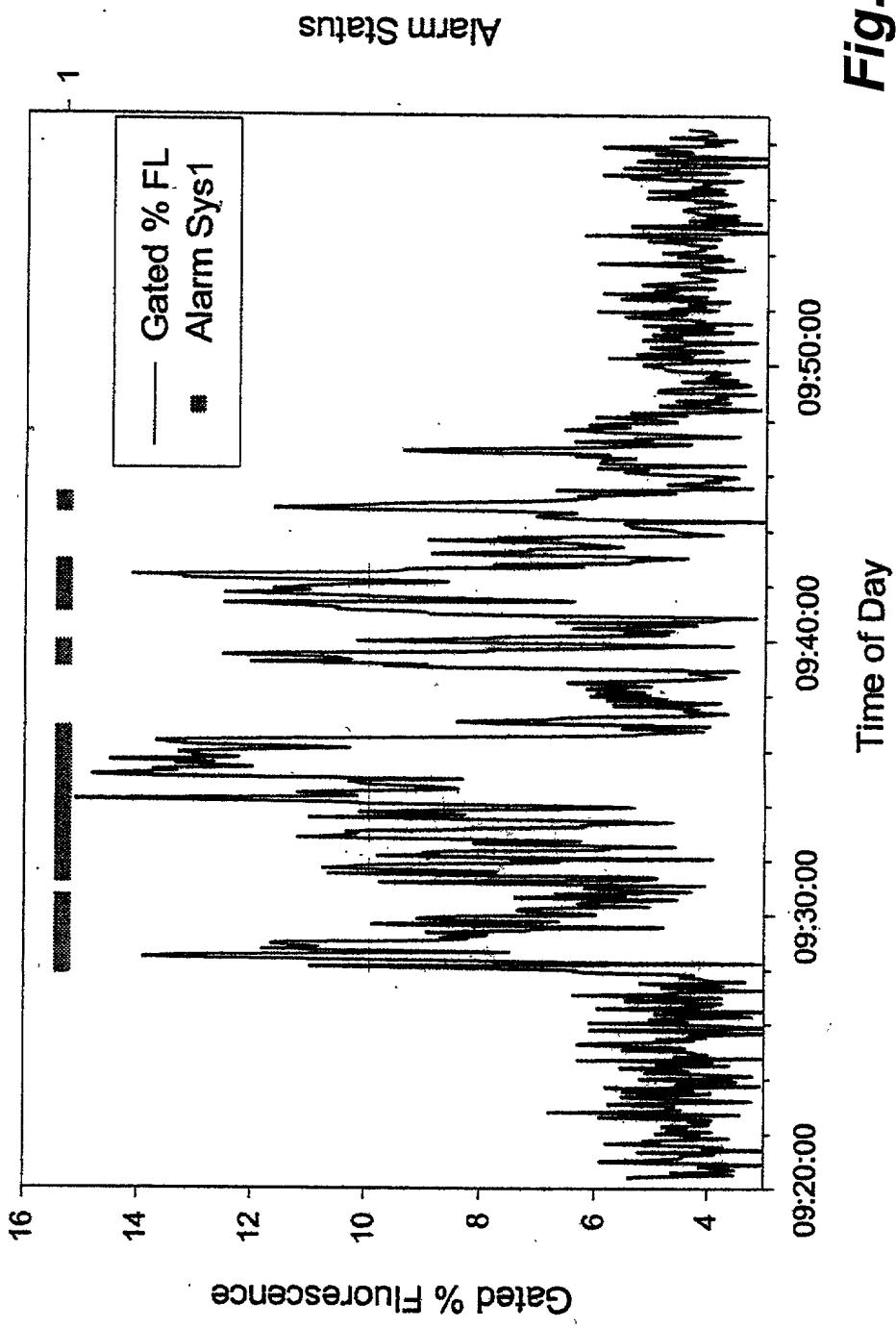
**Fig. 11**

FLAPS1 Nichia Light Source Detection  
Sigma Grade Ovalbumin Aerosol from Nordson Powder Sprayer  
CWAL Trial Site @200M Day 151 2000

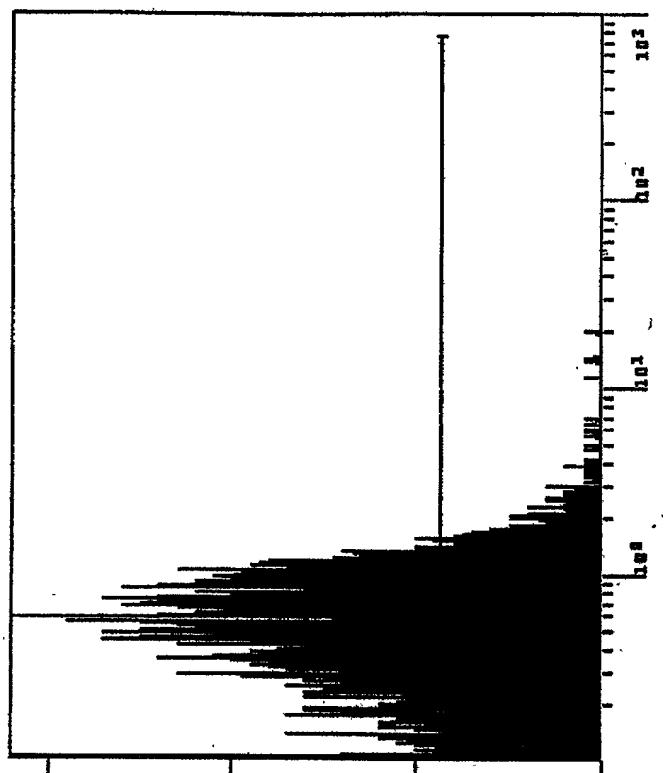


**Fig. 12**

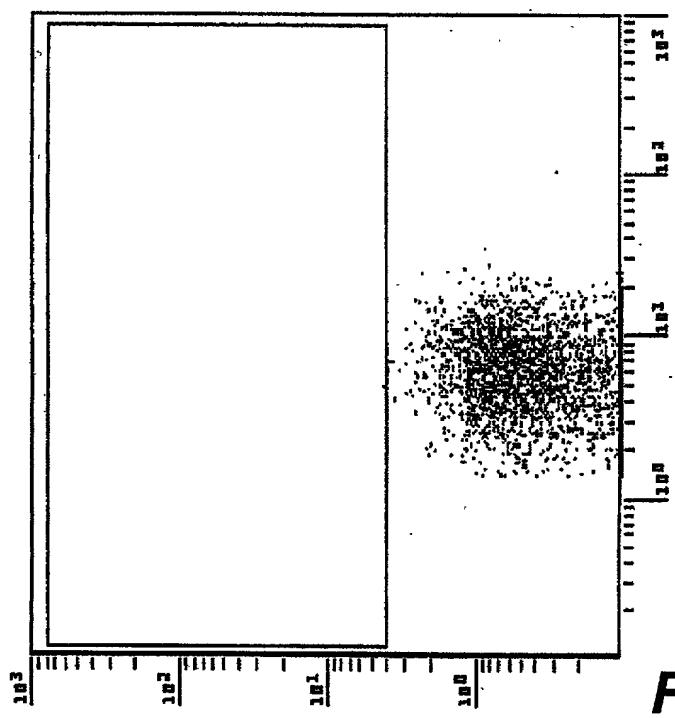
FLAPS1 HeCd Light Source Detection  
Sigma Grade Ovalbumin Aerosol from Nordson Powder Sprayer  
CWAL Trial Site @100M Day 146 2000



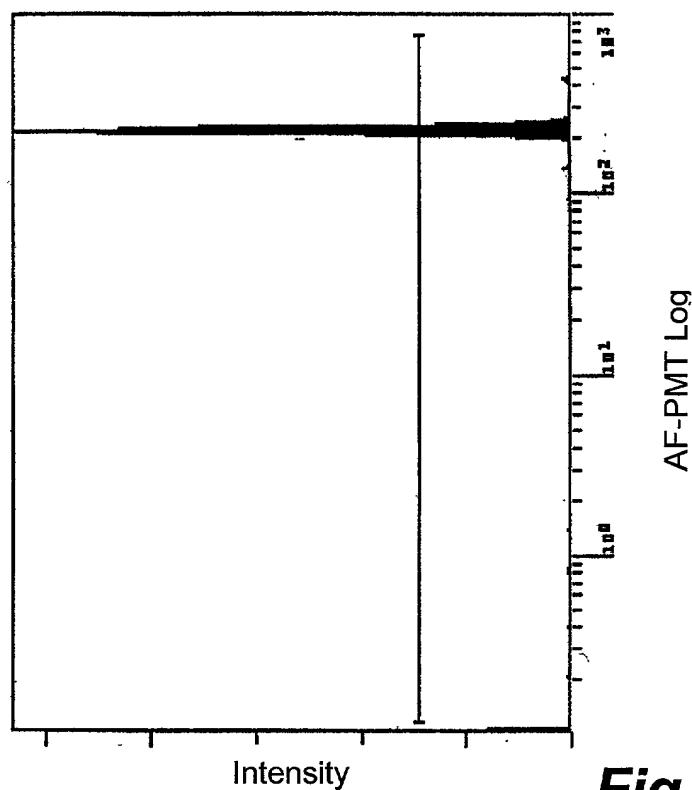
**Fig. 13**



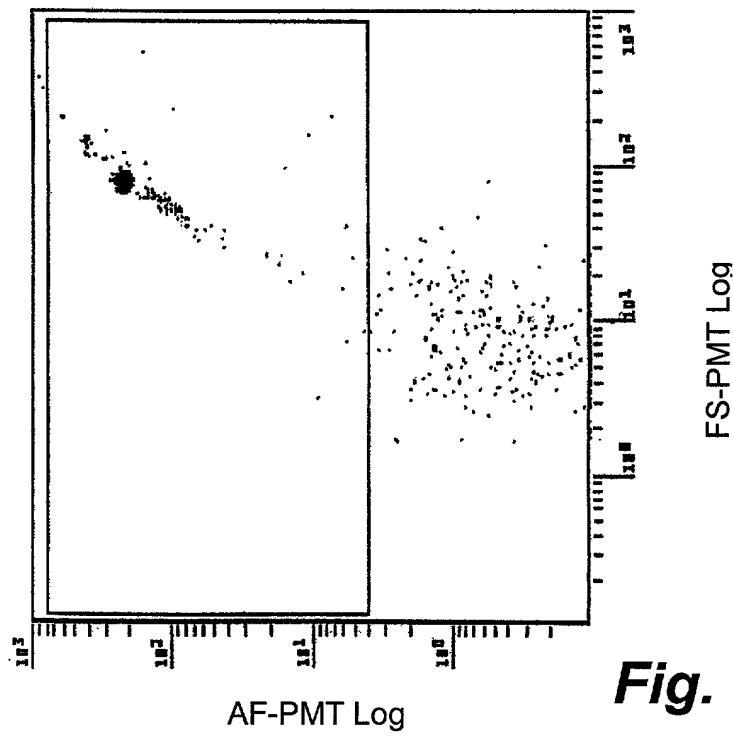
**Fig. 14a**  
AF-PMT Log



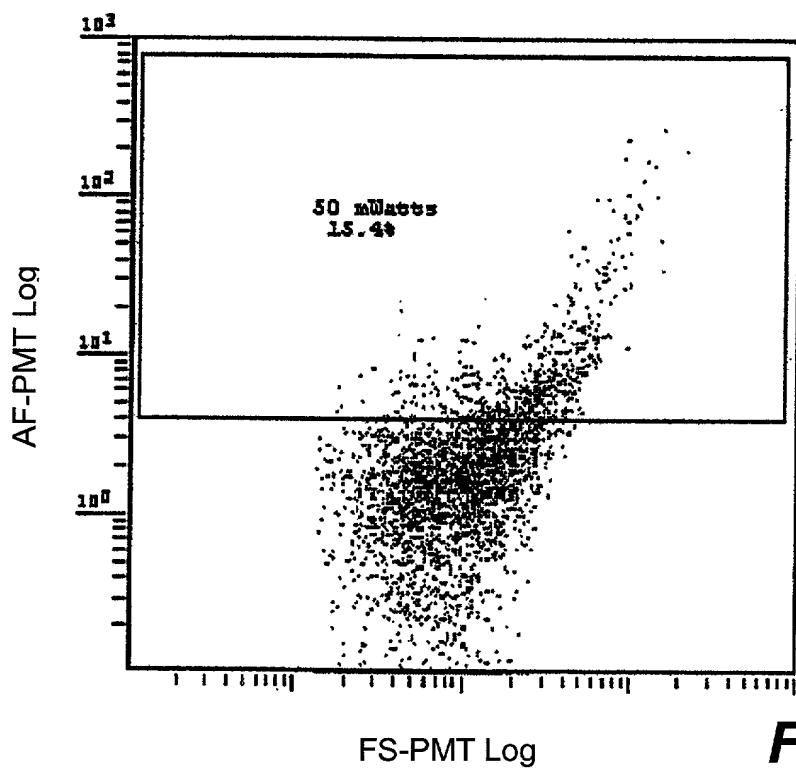
**Fig. 14b**  
FS-PMT Log  
AF-PMT Log



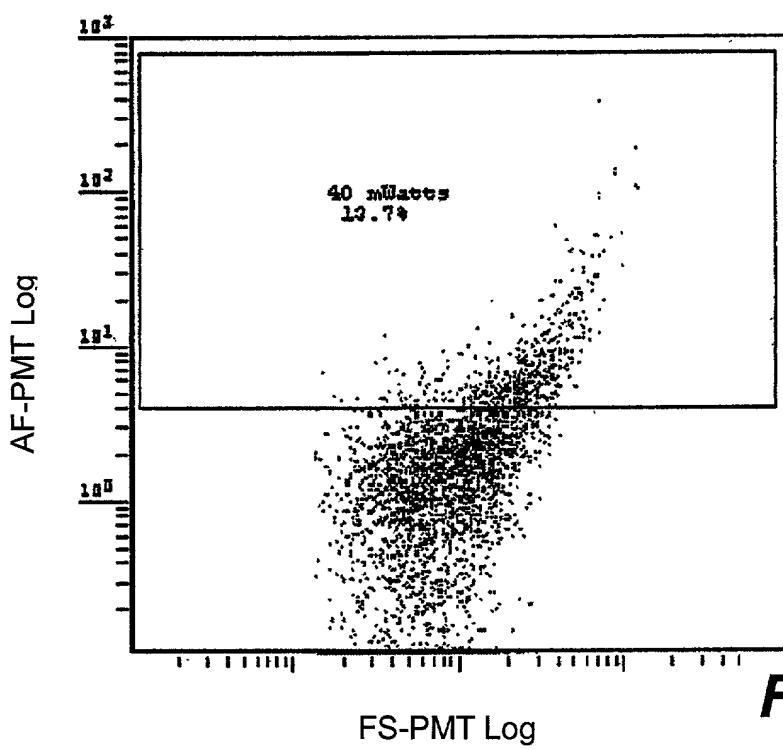
**Fig. 15a**



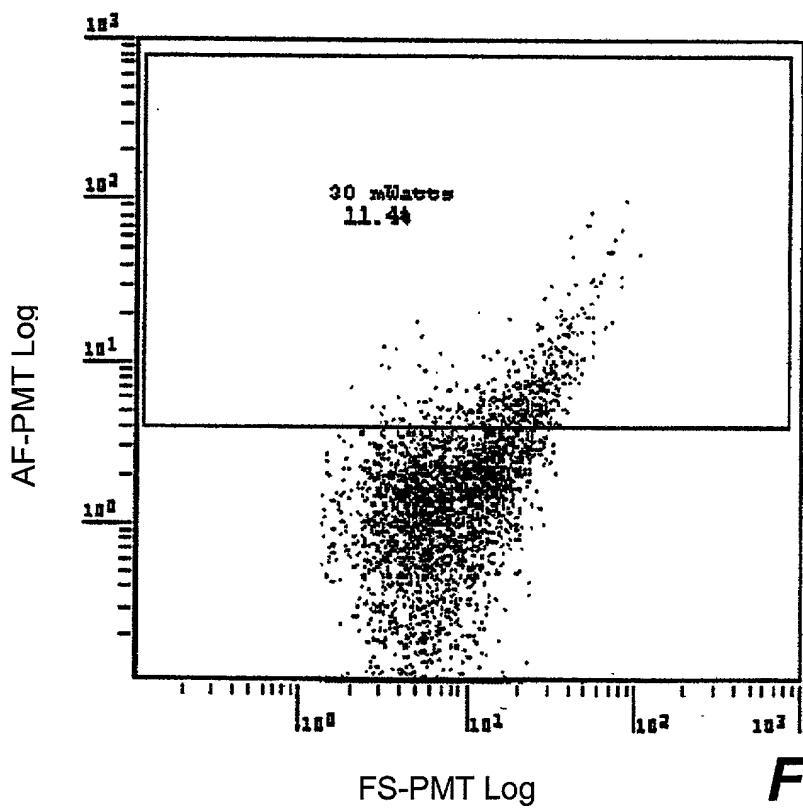
**Fig. 15b**



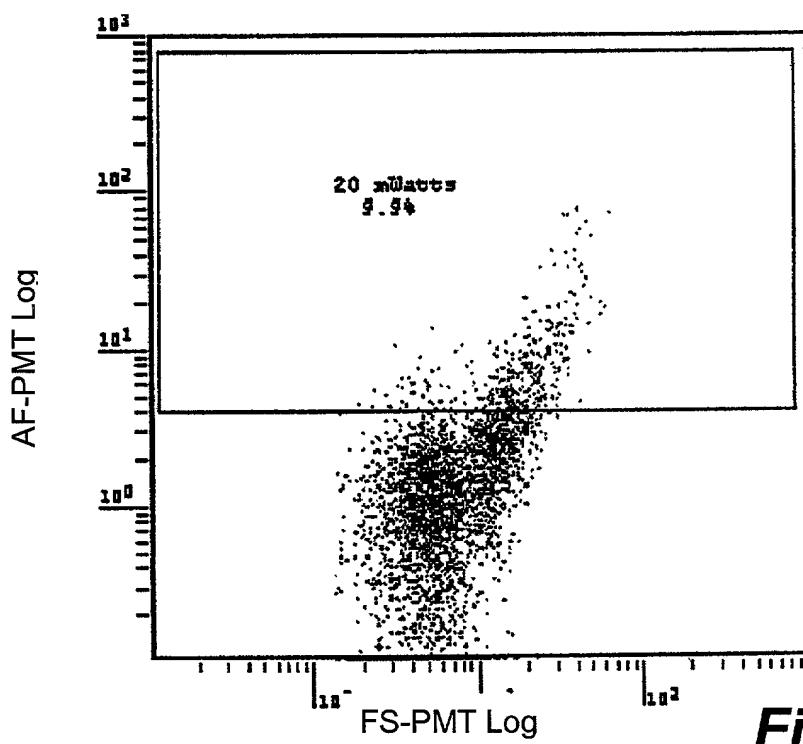
**Fig. 16a**



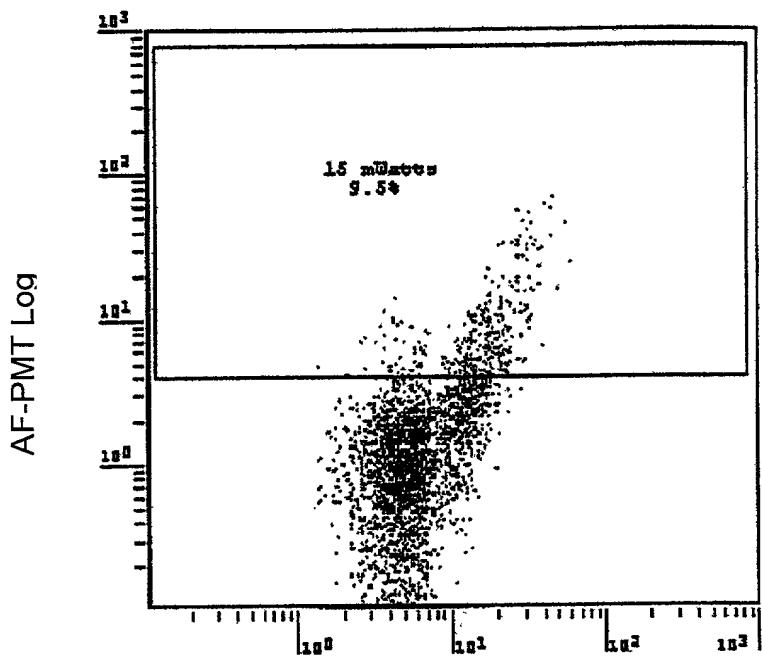
**Fig. 16b**



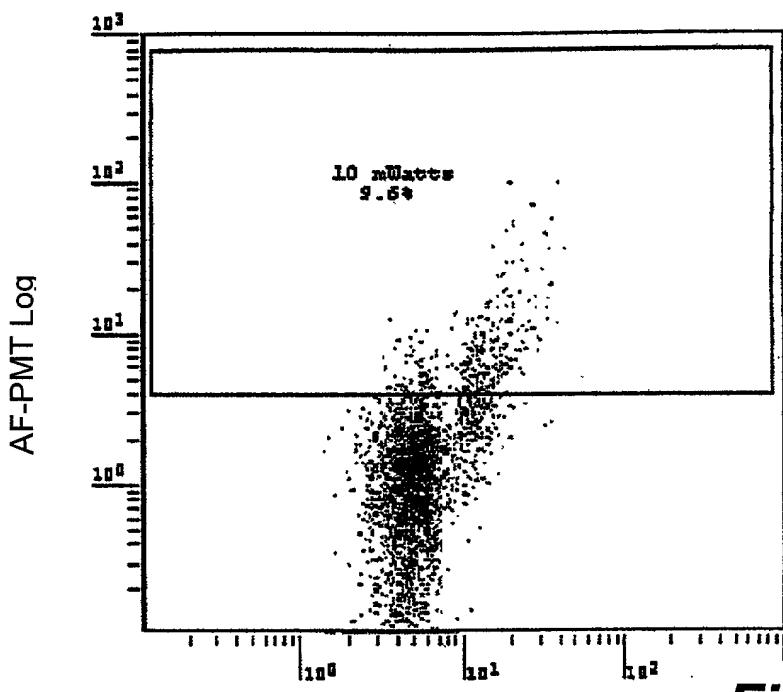
**Fig. 16c**



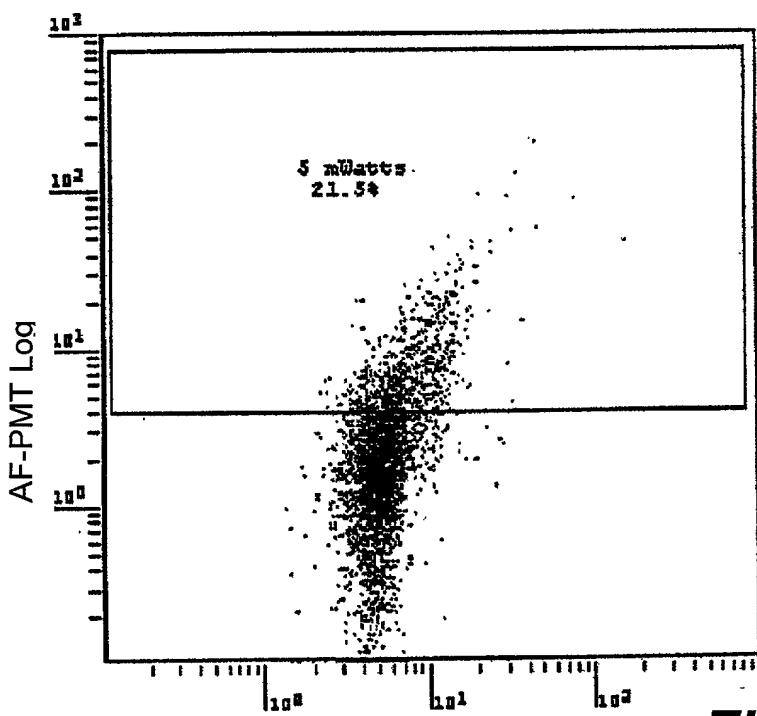
**Fig. 16d**



**Fig. 16e**  
AF-PMT Log  
FS-PMT Log

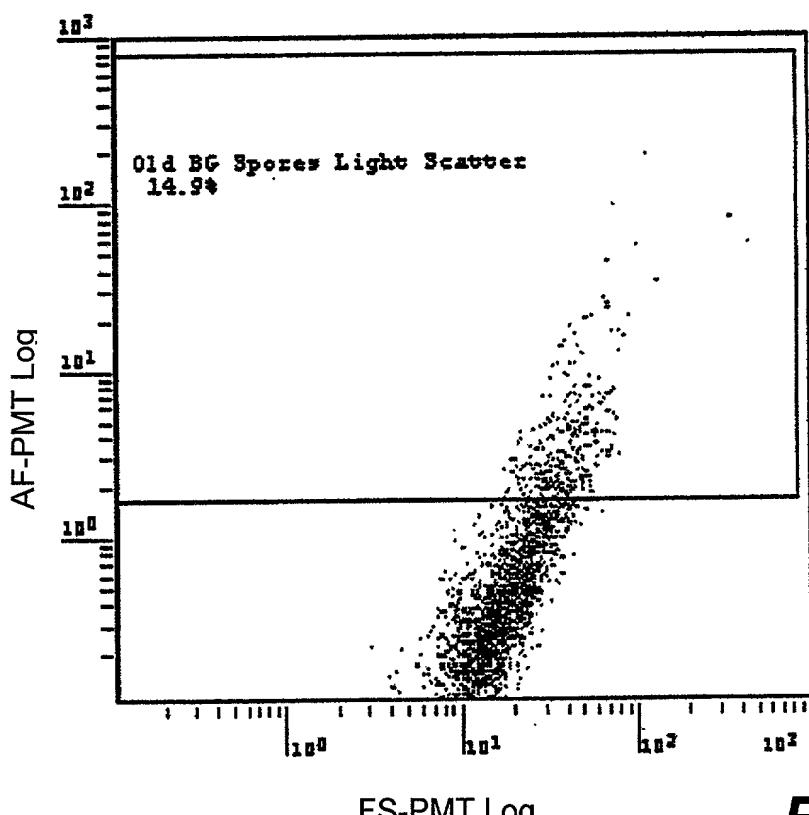


**Fig. 16f**  
AF-PMT Log  
FS-PMT Log

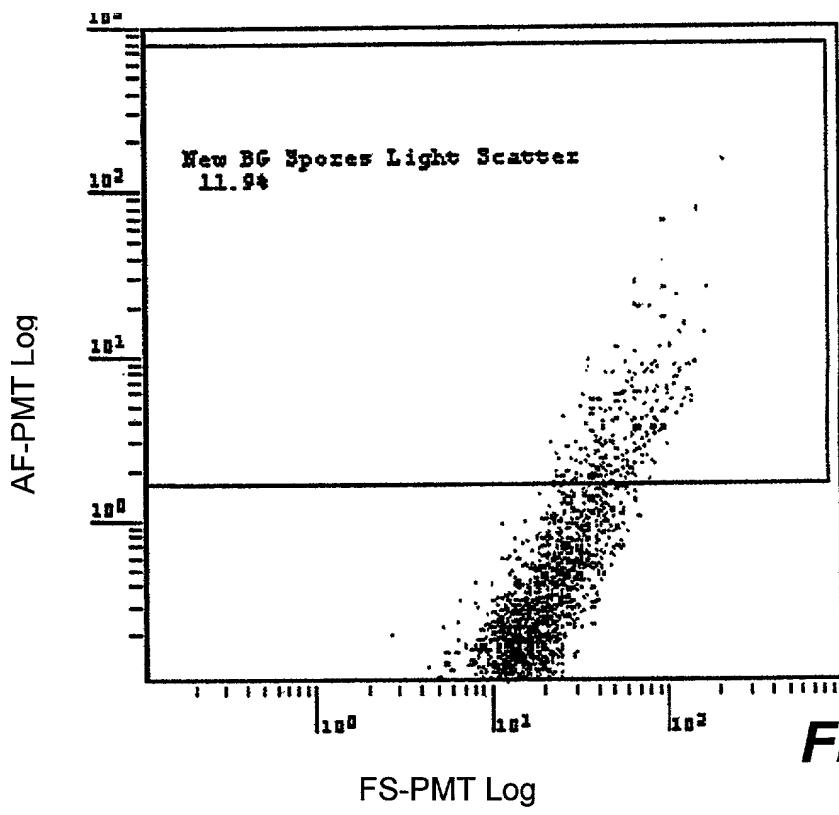


**Fig. 16g**

FS-PMT Log



**Fig. 17a**



**Fig. 17b**